water in cargo tanks, as allowed under §157.35.

[CGD 79–152, 45 FR 82249, Dec. 15, 1980]

§ 157.10c Segregated ballast tanks, crude oil washing systems, and dedicated clean ballast tanks for certain new and existing tankships of 20,000 to 40,000 DWT.

(a) This section applies to each tankship of 20,000 DWT or more, but less then 40,000 DWT, except each one that—

(1) Is constructed under a building contract awarded after June 1, 1979;

(2) In the absence of a building contract, has the keel laid or is at a similar stage of construction after January 1, 1980;

(3) Is delivered after June 1, 1982; or

(4) Has undergone a major conversion, for which—

(i) The contract is awarded after June 1, 1979; or

(ii) Conversion is completed after June 1, 1982.

(b) On January 1, 1986, or 15 years after the date it was delivered to the original owner or 15 years after the completion of a major conversion, whichever is later, a vessel under this section that carries crude oil must have—

(1) Segregated ballast tanks that have a total capacity to allow the vessel to meet the draft and trim requirements in §157.09(b); or

(2) A crude oil washing system that meets the design, equipment, and installation requirements of §§157.122 through 157.138.

(c) On January 1, 1986, or 15 years after the date it was delivered to the original owner or 15 years after the completion of a major conversion, whichever is later, a vessel under this section that carries product must have—

(1) Segregated ballast tanks that have total capacity to allow the vessel to meet the draft and trim requirements in §157.09(b); or

(2) Dedicated clean ballast tanks that meet the design and equipment requirements under §§157.220, 157.222, and 157.224 and have total capacity to allow the vessel to meet the draft and trim requirements in §157.09(b).

(d) If the arrangement of tanks on a vessel under this section is such that, when using the tankage necessary to comply with the draft and trim requirements in §157.09(b), the draft amidships exceeds the minimum required draft by more the 10 percent, or the arrangement results in the propeller being fully immersed by more than 10 percent of its diameter, alternative arrangements may be accepted provided—

(1) At least 80 percent of the propeller diameter is immersed; and

(2) The moulded draft amidships is at least 80 percent of that required under §157.09(b)(1).

[CGD 82–28, 50 FR 11626, Mar. 22, 1985; 50 FR 12800, Apr. 1, 1985]

§ 157.10d Double hulls on tank vessels.

(a) With the exceptions stated in §157.08(n), this section applies to a tank vessel—

(1) For which the building contract is awarded after June 30, 1990;

(2) That is delivered after December 31, 1993;

(3) That undergoes a major conversion for which;

(i) The contract is awarded after June 30, 1990; or

(ii) Conversion is completed after December 31, 1993; or

(4) That is otherwise required to have a double hull by 46 U.S.C. 3703a(c).

NOTE: The double hull compliance dates of 46 U.S.C. 3703a(c) are set out in appendix G to this part. To determine a tank vessel's double hull compliance date under OPA 90, use the vessel's hull configuration (*i.e.*, single hull; single hull with double sides; or single hull with double bottom) on August 18, 1990.

(b) Each vessel to which this section applies must be fitted with:

(1) A double hull in accordance with this section; and

(2) If §157.10 applies, segregated ballast tanks and a crude oil washing system in accordance with that section.

(c) Except on a vessel to which §157.10d(d) applies, tanks within the cargo tank length that carry any oil must be protected by double sides and a double bottom as follows:

(1) Double sides must extend for the full depth of the vessel's side or from the uppermost deck, disregarding a rounded gunwale where fitted, to the top of the double bottom. At any cross

section, the molded width of the double side, measured at right angles to the side shell plating, from the side of tanks containing oil to the side shell plating, must not be less than the distance w as shown in Figure 157.10d(c) and specified as follows:

(i) For a vessel of 5,000 DWT and above: w=[0.5+(DWT/20,000)] meters; or, w=2.0 meters (79 in.), whichever is less, but in no case less than 1.0 meter (39 in.).

(ii) For a vessel of less than 5,000 DWT: w=[0.4+(2.4)(DWT/20,000)] meters, but in no case less than 0.76 meter (30 in.).

(iii) For a vessel to which paragraph (a)(4) of this section applies: w=0.76 meter (30 in.), provided that the double side was fitted under a construction or conversion contract awarded prior to June 30, 1990.

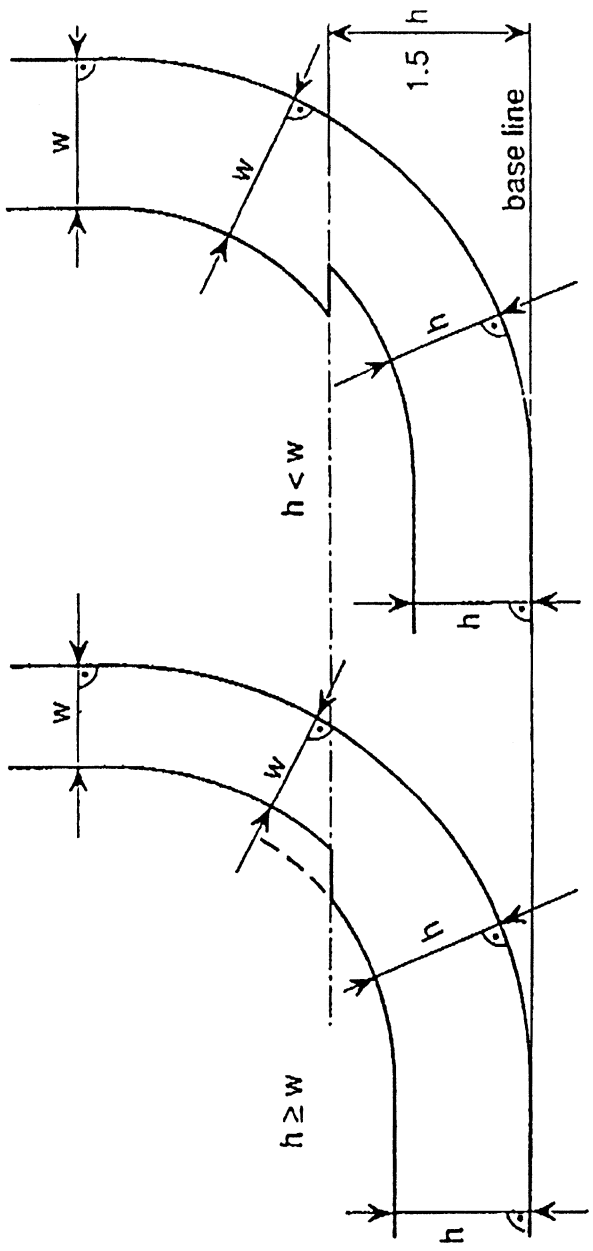


FIGURE 157.10d(c) Minimum Double Hull Dimensions

(2) At any cross section, the molded depth of the double bottom, measured at right angles to the bottom shell plating, from the bottom of tanks containing oil to the bottom shell plating, must not be less than the distance h as shown in Figure 157.10d(c) and specified as follows:

(i) For a vessel of 5,000 DWT and above: h=B/15; or, h=2.0 meters (79 in.), whichever is less, but in no case less than 1.0 meter (39 in.).

(ii) For a vessel of less than 5,000 DWT: h=B/15, but in no case less than 0.76 meter (30 in.).

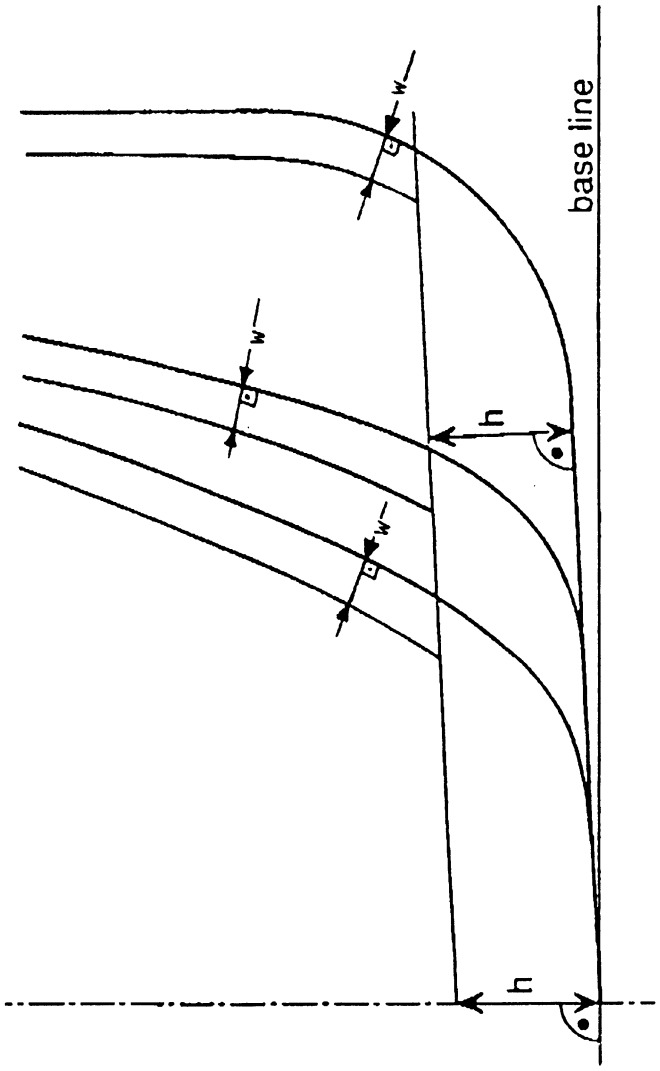
(iii) For a vessel to which paragraph (a)(4) of this section applies: h=B/15; or, h=2.0 meters (79 in.), whichever is the lesser, but in no case less than 0.76 meter (30 in.), provided that the double bottom was fitted under a construction or conversion contract awarded prior to June 30, 1990.

(3) For a vessel built under a contract awarded after September 11, 1992, within the turn of the bilge or at cross sections where the turn of the bilge is not clearly defined, tanks containing oil must be located inboard of the outer shell—

(i) For a vessel of 5,000 DWT and above: At levels up to 1.5h above the base line, not less than the distance h, as shown in Figure 157.10d(c) and specified in paragraph (c)(2) of this section. At levels greater than 1.5h above the base line, not less than the distance w, as shown in Figure 157.10d(c) and specified in paragraph (c)(1) of this section.

(ii) For a vessel of less than 5,000 DWT: Not less than the distance h above the line of the mid-ship flat bottom, as shown in Figure 157.10d(c)(3)(ii) and specified in paragraph (c)(2) of this section. At levels greater than h above the line of the mid-ship flat bottom, not less than the distance w, as shown in Figure 157.10d(c)(3)(ii) and specified in paragraph (c)(1) of this section.

Figure 157.10d(c)(3)(ii) - Minimum Double Hull Dimensions Within the Turn of the Bilge of Vessels Under 5,000 DWT



(4) For a vessel to which §157.10(b) applies that is built under a contract awarded after September 11, 1992.

(i) The aggregate volume of the double sides, double bottom, forepeak tanks, and afterpeak tanks must not be less than the capacity of segregated

ballast tanks required under §157.10(b). Segregated ballast tanks that may be provided in addition to those required under §157.10(b) may be located anywhere within the vessel.

(ii) Double side and double bottom tanks used to meet the requirements of §157.10(b) must be located as uniformly as practicable along the cargo tank length. Large inboard extensions of individual double side and double bottom tanks, which result in a reduction of overall side or bottom protection, must be avoided.

(d) A vessel of less than 10,000 DWT that is constructed and certificated for service exclusively on inland or limited short protected coastwise routes must be fitted with double sides and a double bottom as follows:

(1) A minimum of 61 cm. (2 ft.) from the inboard side of the side shell plate, extending the full depth of the side or from the main deck to the top of the double bottom, measured at right angles to the side shell; and

(2) A minimum of 61 cm. (2 ft.) from the top of the bottom shell plating, along the full breadth of the vessel's bottom, measured at right angles to the bottom shell.

(3) For a vessel to which paragraph (a)(4) of this section applies, the width of the double sides and the depth of the double bottom may be 38 cm. (15 in.), in lieu of the dimensions specified in paragraphs (d)(1) and (d)(2) of this section, provided that the double side and double bottom tanks were fitted under a construction or conversion contract awarded prior to June 30, 1990.

(4) For a vessel built under a contract awarded after September 11, 1992, a minimum 46 cm. (18 in.) clearance for passage between framing must be maintained throughout the double sides and double bottom.

(e) Except as provided in paragraph (e)(3) of this section, a vessel must not carry any oil in any tank extending forward of:

(1) The collision bulkhead; or

(2) In the absence of a collision bulkhead, the transverse plane perpendicular to the centerline through a point located:

(i) The lesser of 10 meters (32.8 ft.) or 5 percent of the vessel length, but in no case less than 1 meter (39 in.), aft of the forward perpendicular;

(ii) On a vessel of less than 10,000 DWT tons that is constructed and certificated for service exclusively on inland or limited short protected coastwise routes, the lesser of 7.62 meters (25 ft.) or 5 percent of the vessel length, but in no case less than 61 cm. (2 ft.), aft of the headlog or stem at the freeboard deck; or

(iii) On each vessel which operates exclusively as a box or trail barge, 61 cm. (2 ft.) aft of the headlog.

(3) This paragraph does not apply to independent fuel oil tanks that must be located on or above the main deck within the areas described in paragraphs (e)(1) and (e)(2) of this section to serve adjacent deck equipment that cannot be located further aft. Such tanks must be as small and as far aft as is practicable.

(f) On each vessel, the cargo tank length must not extend aft to any point closer to the stern than the distance equal to the required width of the double side, as prescribed in §157.10d(c)(1) or §157.10d(d)(1).

[CGD 90–051, 57 FR 36239, Aug. 12, 1992, as amended by USCG–1999–6164, 65 FR 39262, June 23, 2000]

§157.11 Pumping, piping and discharge arrangements.

(a) Each tank vessel must have a fixed piping system for transferring oily mixtures from cargo tanks to slop tanks and for discharging oily mixtures to the sea and to reception facilities. On a vessel that has two or more independent piping arrangements, the arrangements collectively form the fixed piping system required by this paragraph.

(b) Each fixed piping system required by paragraph (a) of this section must have:

(1) At least two manifolds on the weather deck for transferring oily mixtures to reception facilities, one of which is on the port side of the vessel and one of which is on the starboard side; and

(2) Except as provided in paragraph (c) of this section, at least one discharge point that:

(i) Is used for discharges to the sea;